

EAST [defaultmine.wsp:1]

File View Edit Tools Window Help

Drafts Pending Active

L1: (91) polyimide same (coating or coated) same (iol or intraocular lens)
L2: (60) polyimide with (coating or coated) same (iol or intraocular lens)
L3: (0) polyimide with (coating or coated) same (iol or intraocular)
L4: (9) polyimide with (coating or coated) and (iol or intraocular)
L5: (202) polyimide with (coating or coated) and (implant or prosthesis)

Failed Saved

(3311) (604/281 OR 606/155 OR 623/1 OR 606/153 OR 606/195 OR 604/104 OR 606/191 OR 60
(4647) ("623/11" or ("623/8" or ("623/12" or ("623/17" or ("623/925" or ("623/9
(78808) (etch or etching or etched) same (electrode or capacitor)
(53638) (etch or etching or etched) with (electrode or capacitor)

Favorites Tagged UDC Queue Trash

USPAT: EPO, JPO, Derwent

polyimide with (coating or coated) and (implant or prosthesis)

	Search Terms	Total	USPAT	USQCR	ERO	JPO	Derwent
1	COATED. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	790422					
2	COATEDS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	4					
3	COATING. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	1011188					
4	COATINGS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	204601					
5	IMPLANT. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	50286					
6	IMPLANTS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	23283					
7	POLYIMIDE. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	76383					
8	POLYIMIDES. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	16542					
9	PROSTHE. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	4					
10	PROSTHECAE. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	3					
11	PROSTHECATE. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	3					
12	PROSTHECOCHLIS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	1					
13	PROSTHECOCHLORIS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	5					
14	PROSTHECOLORIS. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	1					
15	PROSTHECOMICRO. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	1					
16	PROSTHECOMICROBIUM. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	2					
17	PROSTHETIC. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	2					
18	PROSTHEDENT. D763, D570, D575, D380, D283, D285, D287, D289, D291, D193, D194, D195, D196, D197, D198, D199	1					

Ready

NUM

EAST 1/11/01

	Document ID	Source	Issue Date	Pa
1	US 6156576	USPAT	20001205	18 E
2	US 6099454	USPAT	20000808	18 E
	US 6033582	USPAT	20000307	18 E
4	US 5951458	USPAT	19990914	24 L
5	US 5855546	USPAT	19990105	23 P
6	US 5637772	USPAT	19970610	20 F
7	US 5260352	USPAT	19931109	6 O
8	US 5049156	USPAT	19910917	14 L
9	US 5019210	USPAT	19910528	7 M

DOCUMENT-IDENTIFIER: US 6033582 A

TITLE: Surface modification of medical implants

BSPR:

Many plasma treatment techniques, for polymers in particular, use cold plasmas to activate the surface by plasma-induced polymerization and/or RF plasma treatment to break surface polymer bonds. This action generates ions and free radicals, setting up favorable conditions for subsequent RF plasma-induced polymerization and grafting of monomers to the substrate surface as described

in U.S. Pat. No. 5,080,924; incorporated herein by reference. In another application, similar covalent bonding of polymeric biocompatible materials onto

introduction lenses via RF plasma grafting was successfully achieved, creating a microscopically smooth surface as described in U.S. Pat. No. 5,260,093; herein incorporated in reference.

DEPR:

As previously stated, the inventive method enhances medical implant surfaces by improving the adhesion characteristics of the substrate, which in turn provides for better coating uniformity and thickness of biocompatible polymeric materials because the invention roughens and changes the micro-morphological configurations of the surface. Some of the immobilized polymeric coatings that

can be used include: polyolefins, polyamides, polyimides, polyethers, polyesters, polystyrenes, polyvinyl chlorides, polypropylenes, polyisoprenes,

polytetrafluoroethylenes, polyurethanes, polycarbonates, polyalkylimines (in combination with cross-linking agents: glutaraldehyde, glyoxal, malonaldehyde, succinaldehyde, adipaldehyde, or dialdehyde starch). U.S. Pat. No. 5,415,938

and U.S. Pat. No. 5,415,938, herein incorporated by reference, identify some of the existing art used to polymer coat medical implant devices.

	Document ID	Source	Issue	Date	Pa
1	US 6156576	USPAT	20001205	18	F
2	US 6099454	USPAT	20000808	18	P
3	US 6033582	USPAT	20000307	18	S
4	US 5951458	USPAT	19990914	24	L
5	US 5855546	USPAT	19990105	23	P
6	US 5637772	USPAT	19970610	20	F
	US 5260352	USPAT	19991109	0	U
8	US 5049156	USPAT	19910917	14	I
9	US 5019210	USPAT	19910528	7	M

DOCUMENT-IDENTIFIER: US 5260352 A
TITLE: Ocular lens material

BSPR:

The present invention relates to an ocular lens material. More particularly, it relates to an ocular lens material excellent in the oxygen permeability and heat resistance and useful for e.g. contact lenses or intraocular lenses.

BSPR:

Further, intraocular lenses are required to have adequate heat resistance to be durable against heating at the time of high pressure steam sterilization applied thereto prior to its intraocular insertion, as one of important requirements.

BSPR:

Under these circumstances, the present inventors have conducted extensive researches to develop an ocular lens material excellent particularly in the oxygen permeability and heat resistance while maintaining good transparency in view of the prior art. As a result, they have found an ocular lens material which is provided with both excellent oxygen permeability required for contact lenses and excellent heat resistance required for intraocular lenses simultaneously in good balance and which at the same time is excellent in the

transparency. The present invention has been accomplished on the basis of this discovery.

BSPR:

As another method for forming the above polyimide film, there may, for example, be mentioned a method which comprises casting the above polyamide acid solution on a glass plate, heating it at a temperature of from 100 to 150.degree. C. for from 30 to 120 minutes to form a coating film, immersing this coating film in e.g. a benzene solution of pyridine and acetic anhydride to remove the solvent and to conduct the imidation so that the coating film will be converted to a polyimide film.

BSPR:

In the above first to third methods, as a method for preparing an ocular lens

	Document ID	Source	Issue Date	Pat
1	US 6156576	USPAT20001205	18	F
2	US 6099454	USPAT20000808	18	P
3	US 6033582	USPAT20000307	18	S
4	US 5951458	USPAT19990914	24	L
5	US 5855546	USPAT19990105	23	P
6	US 5637772	USPAT19970610	20	F
7	US 5260352	USPAT19931109	6	O
8	US 5049156	USPAT19910917	14	I
	US 5019210	USPAT19910917	14	I

DOCUMENT-IDENTIFIER: US 5019210 A

TITLE: Method for enhancing the adhesion of polymer surfaces by water vapor plasma treatment

BSPR:

U.S. Pat. No. 4,740,282 describes a treatment for a synthetic plastic intraocular lense to avoid protein adhesion to the lens. The lens is treated by first cross-linking the lens surface by treating the surface with a stream of low pressure hydrogen gas in the presence of an A.C. electrical discharge, and thereafter treating the cross-linked surface with hydroxyl radicals to hydrophilize the surface.

DEPR:

E-beam evaporate 500 angstroms of Cr onto an Si wafer. Spin coat, pre-bake, and 400.degree. C. cure RC5878 (PMDA-ODA manufactured by DuPont) polyimide (5.5.multidot.0.7 microns thick). Liquid polymer is spin coated onto the chrome layer. The chrome layer acts as an adhesion layer. E-beam evaporate a 2.5 micron thick Cu release dam to facilitate peel testing later. The wafers were split into control samples and samples for water vapor plasma treatment.

Plasma conditions were 50 Watt, 175 millitorr and 25.degree. C. electrode temperature. The samples are recombined and three layers of PMDA-ODA spin coated onto the previously deposited polyimide layer. The newly deposited liquid polyimide precursor is prebaked at 100.degree. C. for five minutes between layers. At 100.degree. C. for twenty hours after the last layer is deposited. Then the structure is cured at 400.degree. C. for between 30 minutes to 1 hour. The thickness of the 5 mm peel lines was 16.2+-2.1 microns thick. Five (5) millimeter wide lines are cut in the second polyimide layer. Ninety degree peel tests using stroke control at a rate of 4.55 mm/min. were performed. The control sample's peel strength was measured as 5+-1.1 grams/mm and the water vapor plasma treated sample's peel strength was measured as 90+-8 grams/mm. The water contact angles, measured as previously described, for 400.degree. C. cured RC5878 are 65.degree.-+-3.degree. advancing and 45.degree.-+-3.degree. receding, for the control; and 12+-2 degrees advancing and 3.degree.-+-2.degree. receding for the water vapor plasma treated sample.

	Document ID	Source	Page	Pa
74	US 5726693	USPAT 19980310	16	Ir
75	US 5691089	USPAT 19971125	20	Ir
76	US 5677041	USPAT 19971014	19	Ir
77	US 5672577	USPAT 19970930	20	Cl
78	US 5665116	USPAT 19970909	9	Me
79	US 5665995	USPAT 19970909	12	Pc
80	US 5654203	USPAT 19970805	11	Me
81	US 5654811	USPAT 19970805	76	Cc
82	US 5643826	USPAT 19970701	26	Me
83	US 5637772	USPAT 19970610	20	Fl
84	US 5629186	USPAT 19970513	20	Pc
85	US 5625637	USPAT 19970429	20	St
86	US 5618299	USPAT 19970408	19	Re
87	US 5618760	USPAT 19970408	35	Me
88	US 5612250	USPAT 19970318	19	Me
89	US 5609629	USPAT 19970311	12	Cc
90	US 5595942	USPAT 19970121	11	Me
91	US 5593852	USPAT 19970114	20	St
92	JP 09008035A	DERWE 19970110	4	Cl
93	US 5587095	USPAT 19961224	7	Pr
94	US 5556413	USPAT 19960917	19	Cc
95	US 5550078	USPAT 19960827	15	Re
96	US 5550351	USPAT 19960827	7	Pr
97	US 5543182	USPAT 19960806	14	Se
98	US 5543352	USPAT 19960806	17	Me
99	US 5524338	USPAT 19960611	16	Me
100	US 5515848	USPAT 19960514	18	In
101	US 5496581	USPAT 19960305	16	Pc
102	US 5490909	USPAT 19960213	18	Us
103	US 5483822	USPAT 19960116	11	Ce
104	US 5482566	USPAT 19960109	19	Me
105	US 5471033	USPAT 19951128	7	Pr
106	US 5451804	USPAT 19950919	7	VI
107	US 5441515	USPAT 19950815	20	Re
108	US 5431793	USPAT 19950711	13	Qv
109	US 5429974	USPAT 19950704	13	Pc
110	US 5428102	USPAT 19950627	6	Lc
111	US 5421989	USPAT 19950606	11	Pr
	US 5403700	USPAT 19950404	9	Re

DOCUMENT-IDENTIFIER: US 5403700 A

TITLE: Method of making a thin film electrical component

BSPR:

Yet another feature of the present invention is the provision of a polymer insulation layer with a relatively low cure temperature. Without metal interdiffusion considerations, a logical choice for this insulation layer might be a photoimageable polyimide because the layer can be patterned without the use of additional photoresist steps. Unfortunately, currently available photoimageable polyimides require a high-cure temperature (450.degree. C.) to drive out the photosensitizers. In the preferred embodiment, a BTDA-ODA polyimide is used, with positive photoresist, to form the patterned insulation coating. This material can be cured as low as 250.degree. C., causing significantly less interdiffusion and resulting problems.

BSPR:

Also according to the present invention, a method is provided of making a thin film electrical component. The method comprises the steps of providing a rigid glass carrier plate having a flat surface, coating the flat surface with a first polyamic acid precursor solution, and curing the first polyamic acid precursor solution using heat at a first temperature to provide a layer of polyimide film bonded to the flat surface. In a preferred embodiment of the present invention, the polyimide film has a coefficient of thermal expansion that is substantially equivalent to the coefficient of thermal expansion of the rigid glass carrier plate so that creation of internal stresses in the polyimide film during curing is avoided. In certain other embodiments, glass carrier plates and polyimide films having substantially different coefficients of thermal expansion can be used.

BSPR:

An electrical circuit is provided in the thin film electrical component by depositing a first adhesive metal layer on the polyimide film, a noble metal layer on the first adhesive metal layer, and a second adhesive metal layer on the noble metal layer to sandwich the noble metal layer between the first and second adhesive metal layers, and patterning the deposited noble metal layer and first and second adhesive metal layers to define means on the polyimide film for providing an electrical circuit. Next, a second polyamic acid precursor solution is provided on the means for providing an electrical circuit